

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Yuval Berenstein

Serial No.: 10/667,419

Filed: Sep. 23, 2003

For: System For Production-Line Printing
On Wet Web Material

Examiner: William P. Fletcher III

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Group Art Unit: 1762

Attorney
Docket: 2960/1

TRANSMITTAL OF APPEAL BRIEF


Commissioner of Patents and Trademarks
Alexandria, VA 22313

Dear Sir:

Transmitted herewith is a corrected APPEAL BRIEF in this application with respect to the Notice of Appeal filed on November 1, 2006.

The fee for Appeal Brief was submitted upon filing of the Appeal Brief on November 1, 2006. If however, it is decided that any fee is due, authorization is hereby granted to charge Account No. 06-2140 any additional fees required. A duplicate copy of this transmittal letter is attached.

Respectfully submitted,



Mark M. Friedman
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Date: May 13, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/667,419 Confirmation No. 1092
Applicant : Yuval Berenstein
Filed : 23 Sept 2003
TC/A.U. : 1762
Examiner : William P. Fletcher III

Docket No. : 2960/1

Commissioner of Patents and Trademarks
Washington, D.C. 20231
ATTENTION: Board of Patent Appeals and Interferences

APPELLANT'S BRIEF

Sir:

This is in response to the Notice of Non-Compliant Appeal Brief mailed 17 April 2007. This Brief being filed no or before 17 April, therefore no late fees are due. This version of the Appellant's Brief replaces all previous versions filed.

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I. REAL PARTY IN INTEREST

The real party of interest in this application is the assignee of record - N.R. SPUNTECH Industries Ltd., having a place of business in Upper Tiberias, Israel.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

The claims under appeal are claims 1-9, 13-25 and 29-34.

The status of the claims in this application is as follows:

- Claims 1-9, 13-25 and 29-34 are rejected.
- Claims 10-12 and 26-28 have been canceled and claims 35-53 have been withdrawn as the result of a restriction requirement.

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection mailed 2 May 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention defined by independent **claim 1** under appeal is a method for applying a finishing agent to non-woven fabric during production of the non-woven fabric (*page 10, lines 11-12 and FIGS 1 and 2*) by providing a production line for producing a web of non-woven fabric (*page 12, line 21-page 13, line 1 and FIGS 1 and 2*); substantially continuously forming a web of non-woven fabric using an apparatus for forming said non-woven fabric deployed in said production line (*page 13, lines 4-19 and FIGS 1 and 2*), said non-woven fabric having a moisture content greater than 10% (*page 14, lines 8-10 and 14-17*); passing said non-woven fabric from said apparatus for forming a non-woven fabric to a rotary screen printer deployed in said production line (*page 13, lines*

20-22 and FIGS 1 and 2), said moisture content remaining greater than 10% (*page 14, lines 8-10 and 14-17*); applying the finishing agent to less than 100% of a surface area of said non-woven fabric (*page 15, lines 14-16*) using said rotary screen printer (*page 14, line 18-page 15, line 5*), while said moisture content of said non-woven fabric is greater than 10% by weight (*page 14, lines 8-10 and 14-17*); and subsequently drying said non-woven fabric together with said finishing agent using a drying unit deployed in said production line (*page 13, lines 20-22 and FIGS 1 and 2*).

The invention defined by independent **claim 19** under appeal is a method for applying a finishing agent to non-woven fabric during production of the non-woven fabric (*page 10, lines 11-12 and FIGS 1 and 2*) by providing a production line for producing a web of non-woven fabric (*page 12, line 21-page 13, line 1 and FIGS 1 and 2*); substantially continuously forming a web of non-woven fabric using an apparatus for forming said non-woven fabric deployed in said production line (*page 13, lines 4-19 and FIGS 1 and 2*); passing said non-woven fabric from said apparatus for forming a non-woven fabric to a rotary screen printer deployed in said production line (*page 13, lines 20-22 and FIGS 1 and 2*); and applying the finishing agent to less than 100% of a surface of said non-woven fabric (*page 15, lines 14-16*) using said rotary screen printer (*page 14, line 18-page 15, line 5*), as an in-line process in the production of the non-woven fabric (*page 10, lines 10-13 and 16-18*).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review are as follows:

1. Whether claims 1, 2, 4, 6-9, 13-15, 17-19, 21, 23-31, 33 and 35 are unpatentable over WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) under 35 U.S.C. 103(a).
2. Whether claims 3, 5, 20 and 22 are unpatentable over WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) in further view of U.S. Patent No. 5,935,880 (Wang *et al.*) under 35 U.S.C. 103(a).
3. Whether claims 16 and 32 are unpatentable over WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) in further view of GB 2 292 082 A under 35 U.S.C. 103(a).

VII. ARGUMENTS

Claims 1, 2, 4, 6-9, 13-15, 17-19, 21, 23-31, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/060702 A2 in view of Jellinek *et al.*

In the Office Action of 2 May 2006, the Examiner finally rejected this group of claims, stating the following as the basis for the rejection. "It is the Examiner's position that, because the WO reference teaches the production of decorative laminates, this would have suggested application of the dyes and pigments in any suitable and aesthetically desirable fashion and doing so would have been obvious to one of ordinary skill in the art. There is no evidence is no evidence that the binder applicator taught by the WO document requires 100% coverage." (emphasis added)

In further support of the final rejection of this group of claims, in the Advisory Action of 6 September 2006 the Examiner stated, "Applicant is reminded that the finished product of the WO reference is a decorative laminate. The mere fact that the finished product is a decorative laminate makes the kind and degree of decoration subjective to the desire of the artisan. There is nothing in the WO reference limiting the kind and degree of decoration in any way. The only decoration explicitly disclosed by the reference, such as a wood-grain appearance [3:28-29], are exemplary and non-limiting [see also 1:7-13 and 3:20-29]. Applicant is reminded: that references are part of the literature of the art, relevant for all they contain: that a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments. (MPEP § 2123) Consequently, in the production of a decorative laminate in which the artisan intends for the decorative layer to transmit only partially through the overlay, application of the suitable amount and distribution of dye/pigment to the overlay (i.e., in an amount of less than 100%) would have been well-within the scope of what is

suggested by the broad disclosure of the WO reference. Similarly, in the production of a laminate in which the artisan desires transmittance of a certain color and/or pattern of the underlay through the decorative layer, application of the suitable amount and distribution of dye/pigment to the overlay (i.e., in an amount of less than 100%) would have been well-within the scope of what is suggested by the broad disclosure of the WO reference. Applicant is further reminded that the issue of obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art (In re Siebentritt, 152 USPQ 618 (CCPA 1967)). (emphasis added by Examiner)

The Examiner's rejections seem to be based upon the suggestion in WO 02/060702 A2 of the following two "non-disclosed" embodiments:

- The production of a decorative laminate in which the artisan intends for the decorative layer to transmit only partially through the overlay, application of the suitable amount and distribution of dye/pigment to the overlay
- The production of a laminate in which the artisan desires transmittance of a certain color and/or pattern of the underlay through the decorative layer, application of the suitable amount and distribution of dye/pigment to the underlay.
- Once the "existence" of these two embodiments is established, there is motivation to combine the WO reference with (Jellinek *et al.*).

The Appellant's counter-arguments are presented below.

The MPEP, in Section 2141.02.06, states,

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) sure.

Prior art must be considered in its entirety, including disclosures that teach away from the claims. Appellant contends that in devising the two non-disclosed embodiments mentioned above, the Examiner is relying on modifications to minor elements of the WO reference's lamination process while ignoring the teaching of the document as a whole. It is the Appellant's assertion that it is the decorative layer that provides that artisan with the element with which to make the kind and degree of decoration desired. The mere fact that the finished product is a decorative laminate does not suggest that any and all structural elements of the laminate may be subject to decoration. There is nothing in the WO reference suggesting in any way the kind and degree of decoration to the non-woven layers of the laminate as suggested by the Examiner. By reference to "a wood-grain appearance [3:28-29]", the Examiner has agreed that the only decoration explicitly disclosed by the WO reference is limited to the decorative layer. Appellant asserts that when taking the WO process as a whole, one of ordinary skill in the art would find neither hint nor suggestion to apply colorants in a decorative fashion (i.e., less than 100% coverage) to either the overlay or underlay portions of the WO laminate since a decorative layer is already provided.

Furthermore, Appellant continues to assert, as in previous papers, that WO 2002/060702 does not teach the application of the dyes and pigments in any suitable and aesthetically desirable fashion to non-woven fabric. WO 2002/060702 teaches production of a decorative laminate including a decorative layer and various combinations of overlay,

underlay and substrate layers. Each of the layers is formed separately and rolls of the various layers are mounted on the laminating machine, as is clearly shown in Figure 3.

Non-woven fabrics are only mentioned in the context of the overlay, underlay, and substrate layers of the laminate, which are not for decoration as taught on page 11, lines 13-15 by stating,

“...The underlay, overlay, and/or substrate can be formed from a reinforced polymer layer. A preferred reinforced polymer layer is a non-woven fibrous, fully or partially dispersed wet laid fiber glass/polyvinyl chloride (PVC) compound formed into a mat...”
(emphasis added)

The inclusion of non-woven fabric with regard to the decorative layer is noticeably absent from WO 2002/060702 as reflected in the summary of the invention on page 1 (no lines numbers are given) that states,

“...In accordance with these needs, the first part of the invention describes a decorative laminate comprising:
a) an optional overlay comprised of a reinforced polymeric layer formed by preparing a non-woven fibrous, fully dispersed, wet-laid compound...,
b) a decorative layer,
c) an optional underlay optionally comprising additives, such as colorants, formed by preparing a non-woven fibrous, fully or non-fully dispersed, wet-laid compound...”

With regard to adding color to the overlay and underlay, WO 2002/060702 teaches the overlay needs to be transparent, as stated on page 6, lines 29-31,

“...the overlay should preferably be transparent so that the image of the decorative layer will transmit as intended.”

and the underlay and substrate are essentially covered from view. Any pigment added to the underlay or substrate is only to prevent any color conflict to be seen below the decorative layer as stated on page 9, lines 24-26,

“...Clarity is not essential in the underlayer, so long as there is no undesired transmittance through the decorative layer.”

Therefore, one of ordinary skill in the art would be expected to understand the term “added” as used on page 19, lines 15-17,

“...For example, a colorant, such as a dye or pigment, in addition to be optionally added in the white-water, can be added in a separate step, for example, above 7 by use of an applicator, such as a binder applicator. ...” (emphasis added)

to refer substantially to the addition of a colorant to the entirety of the underlay material in the case of the white-water and the entirety (i.e. 100% coverage) of the of the surface of the underlay in the case of a separate step.

The Appellant respectfully points out that the only reference made to decorative printing in WO 2002/060702 is with regard to the “Decorative Layer,” which is described in detail on pages 3 and 4. WO 2002/060702 clearly teaches on page 3, lines 21-24,

“... Any decorative layer or layers known in the art can be used in the laminates of the invention. Examples include decorative printed-paper or parchment, printed polymeric films (such as printed PVC or acrylic), wood veneers, reconstituted wood veneer, or the like.” (emphasis added)

This description refers to the decorative layer only, which is not a non-woven fabric, nor is there any hint or suggestion that a non-woven fabric would be suitable for this layer.

Therefore, the teachings of WO 2002/060702 provide no motivation to apply dyes and pigments in a suitable and aesthetically desirable fashion using printing rolls to non-woven fabric, nor is there hint or suggestion that such application could be implemented as an in-line process of the production of the non-woven fabric.

The Appellant respectfully asserts that the Examiner is suggesting an embodiment that is not described by WO 2002/060702. To the contrary, the specific provision of a decorative layer distinct from the non-woven overlay and underlay teaches away from the present invention by suggesting that the decorative layer should not be a non-woven layer formed inline.

With regard to the suggested combination of WO 2002/060702 with Jellinek, the Appellant asserts that since, as stated above, the teachings of WO 2002/060702 provide no motivation to apply dyes and pigments in a suitable and aesthetically desirable fashion to

the non-woven fabric, and certainly not during as part of the line-in production process of the non-woven fabric, there would be not motivation to combine the teachings of Jellinek with those of WO 2002/060702 regarding the use of a rotary screen printer (Jellinek) to apply a decorative layer to non-woven fabric as an inline process in the production line producing the non-woven fabric (WO 2002/060702).

The aforementioned MPEP section 2141.02.06 clearly indicates that a prior art reference must be considered in its entirety. The Appellant therefore believes that the § 103(a) rejection is clearly improper and respectfully requests that this rejection be overturned by the Board of Patent Appeals and Interferences.

The MPEP, in Section 2145.10.A, states,

Applicants may argue that the examiner's conclusion of obviousness is based on improper hindsight reasoning. However, "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." *In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). Applicants may also argue that the combination of two or more references is "hindsight" because "express" motivation to combine the references is lacking. However, there is no requirement that an "express, written motivation to combine must appear in prior art references before a finding of obviousness." See *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004) (emphasis added)

Appellant contends that in devising the two non-disclosed embodiments mentioned above, the Examiner is relying not on the knowledge which was with in the level of ordinary skill in the art at the time the claimed invention was made but rather on improper hindsight, that is, knowledge gleaned only from Appellant's disclosure. Therefore, rejection of this group of claims is clearly improper.

That is to say, Appellant contends that there is neither hint nor suggestion in the WO document that there would be any benefit or utility in the production of a decorative laminate in which the artisan intends for the decorative layer to transmit only partially through the overlay, such that one of ordinary skill in the art would be motivated to apply a suitable amount and distribution of dye/pigment to the overlay. The same is true for the production of a laminate in which the artisan desires transmittance of a certain color and/or pattern of the underlay through the decorative layer, such that one of ordinary skill in the art would be motivated to apply a suitable amount and distribution of dye/pigment to the underlay.

Further, the Examiner states, "...the Examiner's position holds that there is no evidence of record that the binder applicator taught by the WO document requires 100% coverage." Appellant asserts that, here too, the Examiner is relying not on the knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made but rather on knowledge gleaned only from Appellant's disclosure. The Examiner has failed to provide any reference published prior to the date of the instant application that specifically recites application of additives with less than 100% coverage to non-woven material in the production line during the manufacturing process while the moisture content is above 10% by weight. The Examiner, instead, brings this WO document as the closest prior art, which clearly teaches addition of the colorant to the white water slurry or the use of a binder applicator. Appellant asserts that by stating both the white water slurry method and the binder applicator, these two methods of applying colorants would have suggested to one of ordinary skill in the art at the time of the invention, total coverage of the material. For a selective application device such as a rotary screen printer the Examiner must combine the teachings of Jellinek *et al.*, which is used to apply the printed additive on dry non-woven material as an off-line process. This is very different from the process of the instant invention. Appellant asserts that the only

motivation to look to Jellinek *et al.* is provided by a desire to apply the teachings of the instant application to the WO reference. It is, therefore, the Appellant's position that there is no evidence of record that the binder applicator taught by the WO document provides less than 100% coverage. Appellant further asserts that is the Examiner's knowledge of the teachings of the instant invention that compels the Examiner to see the possibility of less than 100% coverage by the binder applicator as taught by the WO document.

The aforementioned MPEP section 2145.10.A clearly indicates that it is improper to reject claims based on improper hindsight reasoning, wherein knowledge gleaned only from applicant's disclosure was used to motivate the Examiner to suggest the modification to the prior art. The Appellant therefore believes that the §103(a) rejection is clearly improper and respectfully requests that this rejection be overturned by the Board of Patent Appeals and Interferences.

Claims 3, 5, 20 and 22 are rejected as unpatentable over WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) in further view of U.S. Patent No. 5,935,880 (Wang *et al.*) under 35 U.S.C. 103(a).

The arguments against WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) as stated above are applied here as well. Therefore, Appellant asserts that there is no motivation to combine Wang *et al.* with either of these references.

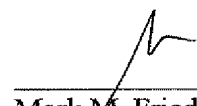
The Appellant, therefore, submits that the §103(a) rejections of this group of claims are improper and respectfully requests that these rejections be overturned by the Board of Patent Appeals and Interferences.

Claims 16 and 32 are rejected as unpatentable over WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) in further view of GB 2 292 082 A under 35 U.S.C. 103(a).

The arguments against WO 02/060702 A2 in view of U.S. Patent No. 4,810,751 (Jellinek *et al.*) as stated above are applied here as well. Therefore, Appellant asserts that there is no motivation to combine GB 2 292 082 A with either of these references.

The Appellant, therefore, submits that the §103(a) rejections of this group of claims are improper and respectfully requests that these rejections be overturned by the Board of Patent Appeals and Interferences.

Respectfully submitted,



Mark M. Friedman
Attorney for Applicant
Registration No. 33,883

Date: 14 MAY 2007

VIII. APPENDIX - COPY OF CLAIMS UNDER APPEAL

1. A method for applying a finishing agent to non-woven fabric during production of the non-woven fabric, the method comprising:

- (a) providing a production line for producing a web of non-woven fabric;
- (b) substantially continuously forming a web of non-woven fabric using an apparatus for forming said non-woven fabric deployed in said production line, said non-woven fabric having a moisture content greater than 10%;
- (c) passing said non-woven fabric from said apparatus for forming a non-woven fabric to a rotary screen printer deployed in said production line, said moisture content remaining greater than 10%;
- (d) applying the finishing agent to less than 100% of a surface area of said non-woven fabric using said rotary screen printer, while said moisture content of said non-woven fabric is greater than 10% by weight; and
- (e) subsequently drying said non-woven fabric together with said finishing agent using a drying unit deployed in said production line.

2. The method of claim 1, wherein said applying the finish is an in-line process of the production of the non-woven fabric.

3. The method of claim 1, wherein said formation is by a hydro-entanglement process.

4. The method of claim 1, wherein said formation is by a wet-laid process.

5. The method of claim 1, wherein said formation is by a dry-laid process.

6. The method of claim 1, further comprising removal of at least a portion of production water from said non-woven fabric prior to said applying.

7. The method of claim 6, wherein said removal of at least a portion of production water from said non-woven fabric renders water content of said non-woven fabric in a range of between 80%-150% by weight.

8. The method of claim 7, wherein said removal of at least a portion of production water from said non-woven fabric is implemented as dewatering followed by a preliminary drying process, thereby rendering water content of said non-woven fabric in a range of between 10%-80% by weight.

9. The method of claim 1, wherein said applying is substantially uninterrupted application along said substantially continuous non-woven fabric.

10. (canceled)

11. (canceled)

12. (canceled)

13. The method of claim 1, wherein said applying of the finishing agent is implemented as applying a paste.

14. The method of claim 1, wherein said applying of the finishing agent is implemented as applying a foam.

15. The method of claim 1, wherein said applying of the finishing agent includes applying a detergent additive.

16. The method of claim 1, wherein said applying of the finishing agent includes applying a scent producing additive.

17. The method of claim 1, wherein said applying of the finishing agent includes selective applying a colorant.

18. The method of claim 17, wherein said applying of the finishing agent includes selective applying a graphic design.

19. A method for applying a finishing agent to non-woven fabric during production of the non-woven fabric, the method comprising:

- (a) providing a production line for producing a web of non-woven fabric;
- (b) substantially continuously forming a web of non-woven fabric using an apparatus for forming said non-woven fabric deployed in said production line;
- (c) passing said non-woven fabric from said apparatus for forming a non-woven fabric to a rotary screen printer deployed in said production line; and
- (d) applying the finishing agent to less than 100% of a surface of said non-woven fabric using said rotary screen printer, as an in-line process in the production of the non-woven fabric.

20. The method of claim 19, wherein said formation is by a hydro-entanglement process.

21. The method of claim 19, wherein said formation is by a wet-laid process.

22. The method of claim 19, wherein said formation is by a dry-laid process.

23. The method of claim 19, further comprising removing at least a portion of production water from said non-woven fabric.

24. The method of claim 19, wherein said removal of at least a portion of production water renders water content of said non-woven fabric in a range of between 10%-80% by weight.

25. The method of claim 19, wherein said applying is substantially uninterrupted application along said substantially continuous non-woven fabric.

26. (canceled)

27. (canceled)

28. (canceled)

29. The method of claim 19, wherein said applying of the finishing agent is implemented as applying a paste.

30. The method of claim 19, wherein said applying of the finishing agent is implemented as applying a foam.

31. The method of claim 19, wherein said applying of the finishing agent includes applying a detergent additive.

32. The method of claim 19, wherein said applying of the finishing agent includes applying a scent producing additive.

33. The method of claim 19, wherein said applying of the finishing agent includes selectively applying a colorant.

34. The method of claim 33, wherein said applying of the finishing agent includes selectively applying a graphic design.

IX. APPENDIX OF EVIDENCE

NONE

X. APPENDIX OF RELATED PROCEEDINGS

NONE